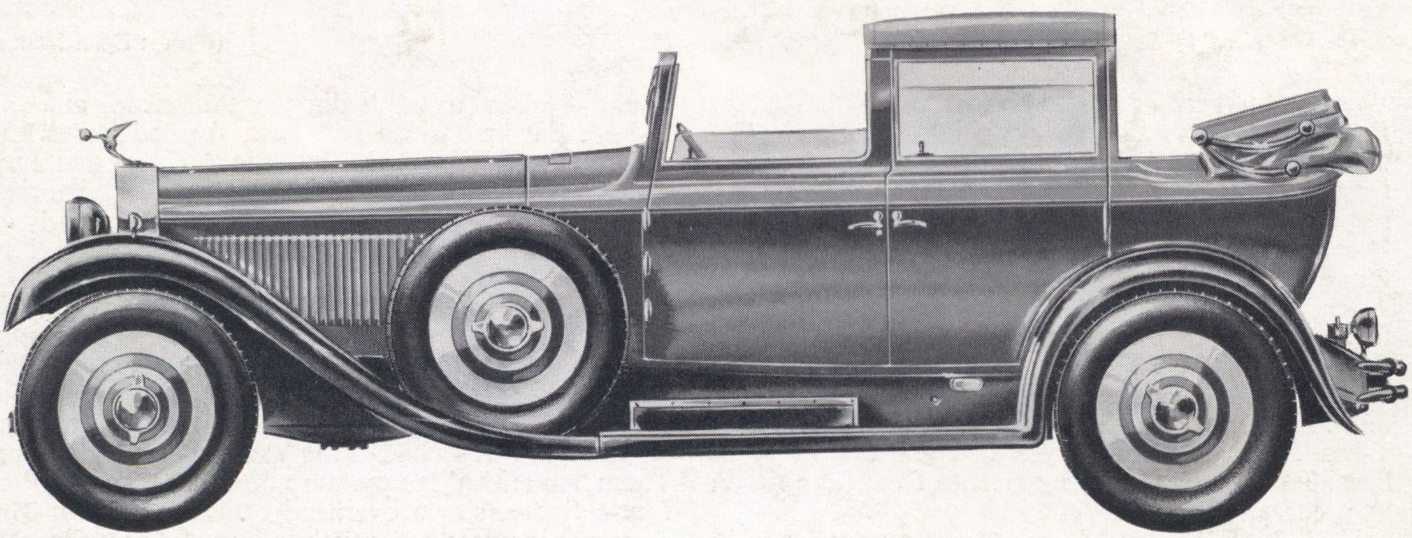
The Isotta Fraschini Tipo 8 Series



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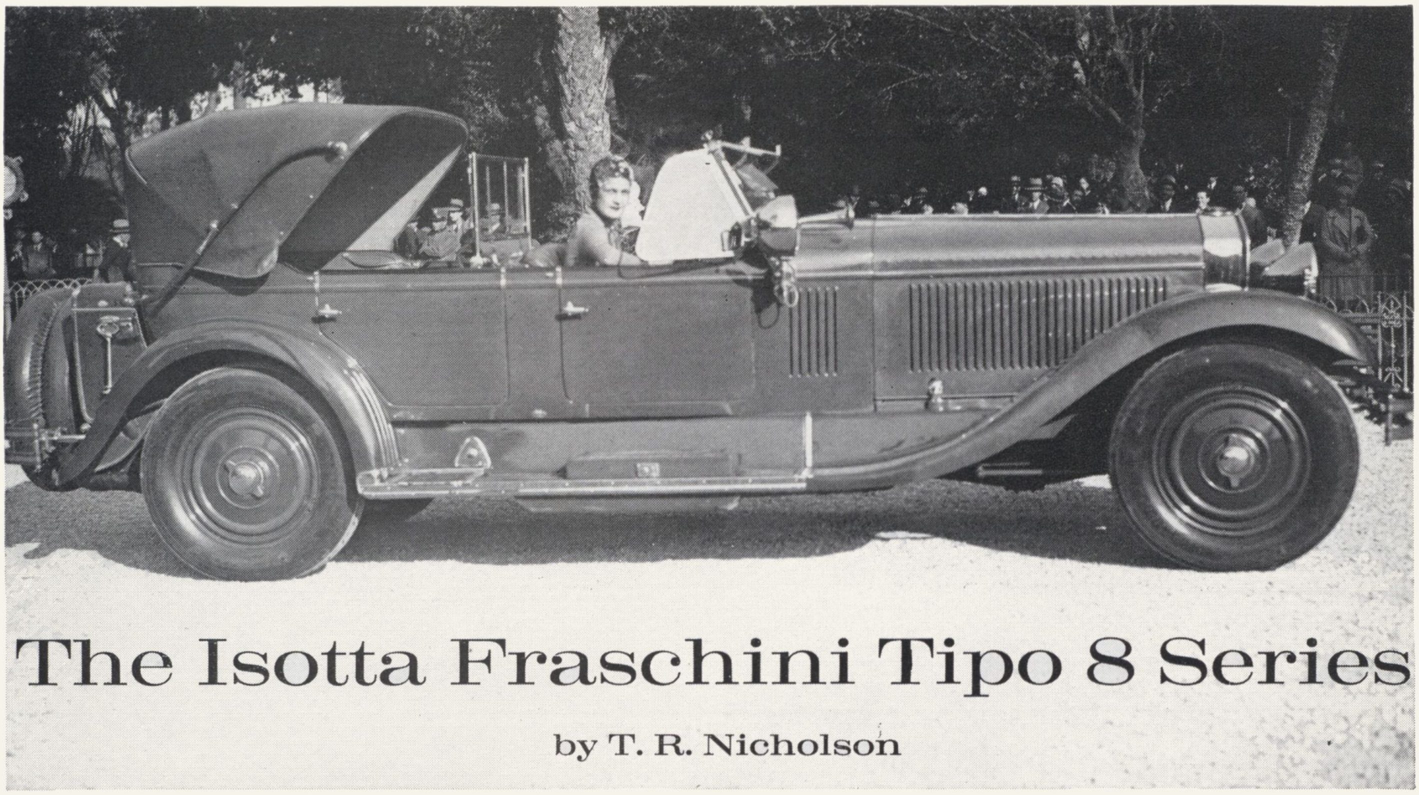
The Isotta Fraschini Tipo 8 Series

by T. R. Nicholson



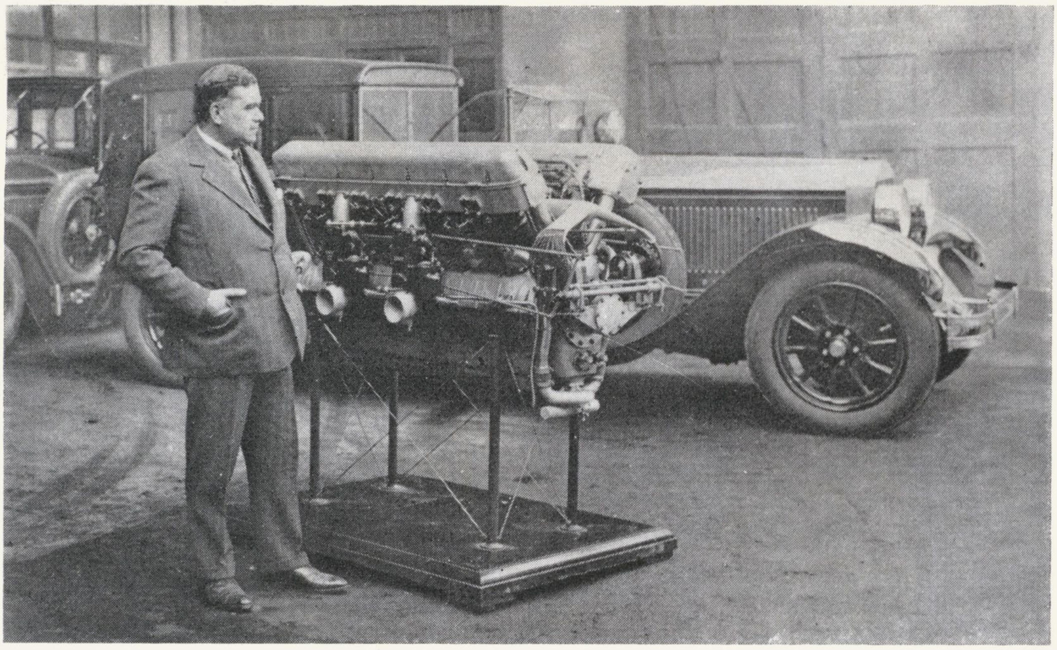
'Torpedo Mylord' by Sala on the Isotta Fraschini Tipo 8A chassis, 1929. (Photo: Egon Hanus)

The development of the Fabbrica Automobili Isotta Fraschini, its cars and engines prior to the arrival of the Tipo 8 are dealt with in some detail here because they show such clear pointers to the future in so many respects. In 1899, Cesare Isotta and Vincenzo Fraschini had set themselves up as the Milan agents for the new Renault and Mors from France, and for Aster engines. By 1901 they were assembling the former car, so the first Isotta Fraschini was in fact a Renault *voiturette*. More and more parts came to be made in Italy. As early as this, all bodies were custom-built. In 1902 a new type made its bow: a four-cylinder, T-head, 24 h.p. chain-driven machine on Mercédès lines. This car was a truer portent of the future than its predecessor.

Until 1905, Isottas of various types were made in penny packets, but that year marked the end of tentative experiment. Capital was found for major expansion. The age of the motor-car seemed to be dawning, and the Milan concern was not going to be left out. A new factory was opened on the Via Monterosa, and the engineer Giustino Cattaneo was brought in. This brilliant man had worked for Bernardi, Italy's pioneer of the motor-car, and for Florentia and Züst. Antonio Chiribiri, who was later to make his own cars, came with him. From now on, the company was to devote itself almost entirely to large, powerful, expensive cars. In 1907 the French Lorraine-Dietrich concern acquired a controlling interest in the company, which lasted four years. The influence of Ettore Bugatti, then with Lorraine-Dietrich, was seen in the 10 h.p. Isotta of 1907–9, also sold as a Lorraine-Dietrich. This was a 1·4-litre monobloc 'four' with a single overhead camshaft, a live axle and four forward speeds; a most advanced design. However, a very sophisticated Isotta had appeared before Lorraine-Dietrich took control: the 120 h.p. racing car of 1905, which also used an overhead camshaft.

In 1907, a New York sales office, the Isotta Import Company, was opened. These big, fast machines had already taken a hold on the American market; indeed, the first Isotta had been shipped across the Atlantic as early as 1902. Sales in America and elsewhere were helped by a series of racing victories. Isotta Fraschini had been racing Renaults as early as 1900, but the triumphs came later. Minoia's 40 h.p. won the Florio Cup in 1907 and Trucco's 40 h.p. the Targa Florio in 1908, Isotta's *annus mirabilis*. In the same year, in America, Louis Strang won the Savannah Challenge Trophy, the Briarcliff Trophy and the Lowell Road Race, while Herbert Lytle was victorious in the Long Island Motor Parkway Sweepstakes, and was second in the Vanderbilt Trophy race. These 'American' Isottas were powered by a 7·4-litre, four-cylinder, single overhead camshaft engine. The camshaft actuated the valves direct, not through rockers. Of Lorraine-Dietrich design, this engine had been unsuccessful in Europe. By 1909, 75 per cent of Isotta production was being exported. Italy was a poor, sparsely-industrialised country without a large market for cars, let alone expensive ones.

The biggest Isottas of 1909 incorporated efficient front wheel brakes designed by Oreste Fraschini, Vincenzo's brother. Longitudinal brake rods pulled universally-jointed transverse shafts, which in turn actuated the expanders inside the brake drums. All models wore them for 1910, and henceforth. Isotta Fraschini thus became the first motor manufacturer to standardise four-wheel brakes. Nor was this the end of their inventiveness. The 1910 Paris Salon saw the introduction of Cattaneo's magnificent 100 h.p. Type KM, a chain-driven sporting machine with a four-cylinder, 130 × 200 mm., 10·6-litre engine, its sixteen valves operated by an overhead camshaft. This power unit developed between 125 and 140 b.h.p. at 1,800 r.p.m., and propelled the KM at 90 m.p.h. It was put into small-scale production in 1912, alongside the smaller, monobloc, but otherwise similar Type TM. Including these, no fewer than 15 Isotta models were listed. Already, the company was one of the three largest in Italy, with Fiat and Itala. In the previous



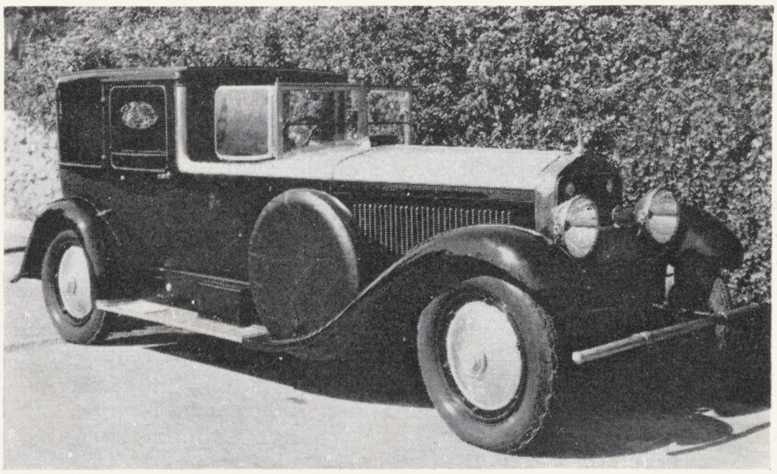
The artist with two of his creations: Giustino Cattaneo beside an ASSO 500 aero engine, with a Tipo 8 or 8A in the background.
(Photo: Valerio Moretti and Egon Hanus)

year, when the Lorraine-Dietrich link had been dissolved, 300 cars had been made—a high output at the time for a maker of such machines. By 1914, Isotta Fraschini were already specialising in, and famous for, expensive cars of the most modern conception whose design directly foreshadowed much of what was to come, and were selling most of them abroad, notably to the United States.

With the coming of war to Italy in 1915, Isotta Fraschini turned over production to military vehicles and to marine and aero engines, of which 4,000 were made. The company had taken an interest in aero engines as early as 1908, when a vee-eight unit of 60 h.p. was made. The best-known wartime engine was the 250 h.p. V4B. Aero engine design demanded a combination of light weight, power and reliability, and reinforced the experience of the Isotta engineers, who were already no strangers to these qualities. Post-war motor-car policy was unchanged, in that the company would still make expensive vehicles only; there would be no attempt to exploit the new mass market for cheap cars that was opening up all over the world. Most pre-war models had been 'fours', but experiments were being conducted with a new 'six' and 'eight' during 1915, and a prototype of the latter was said to be on the road in 1916. The number of motor manufacturers in Italy had nearly doubled immediately after the war, and their capital had quadrupled thanks to wartime contracts, but as late as 1922, Italy still had only one car per 1,000 of the population. New, penal motor-car taxation had not helped the home market, which was still relatively weak and impoverished. However, in the world as a whole, many fortunes had been made during the war, and Isotta, together with Rolls-Royce, Hispano-Suiza and others, would provide the ultimate in luxurious motoring for the new rich. Isotta Fraschini already had a powerful grip on the American luxury market, which was far larger than that of any European country, and would depend on it, as before. This was an expensive policy, so Milan would not go in for racing any more, and more important, would rationalise their production. Only one model would be made, as in the case of their competitors.

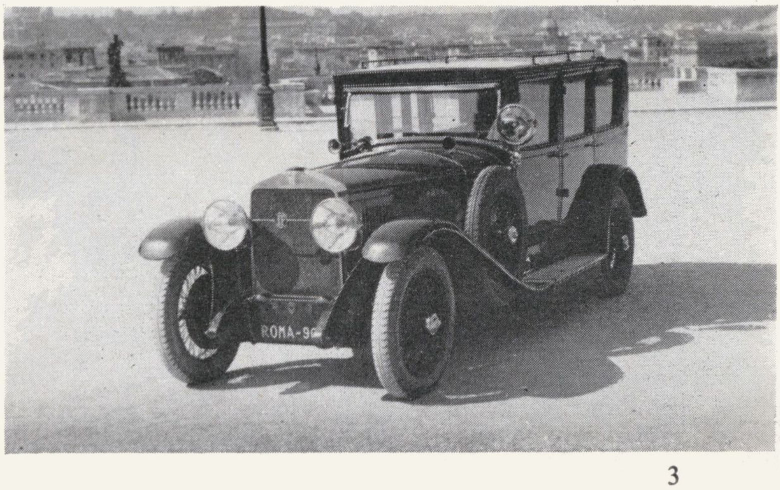
THE CARS

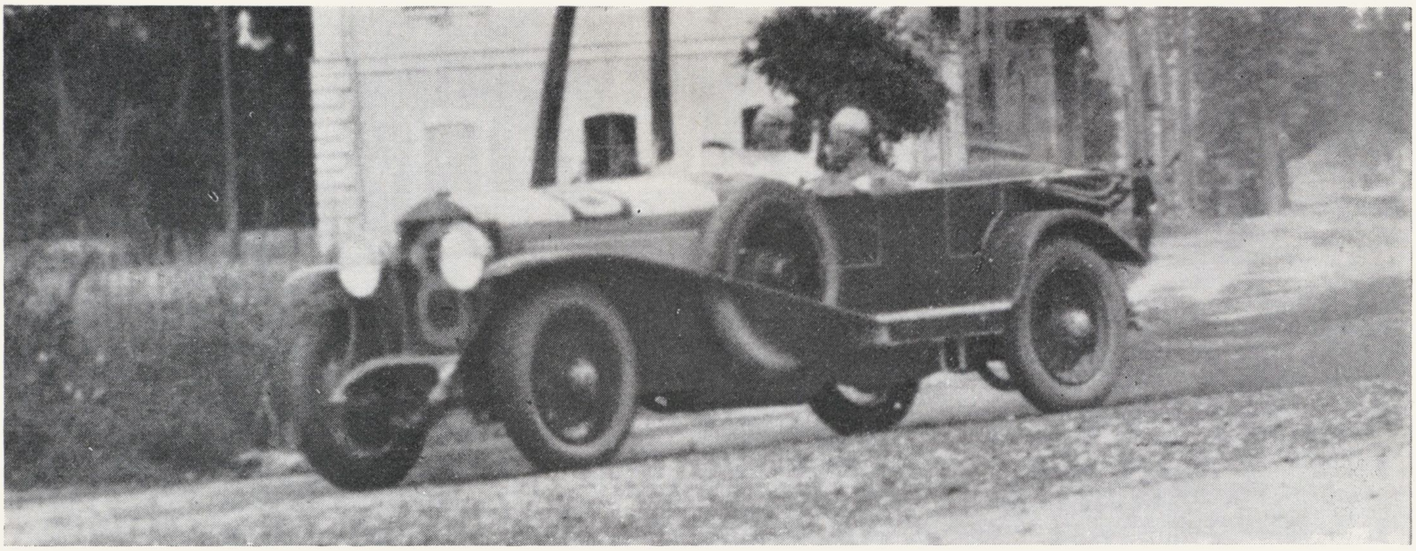
Such was the background of the Tipo 8 Isotta Fraschini, announced to the Italian public at the end of August 1919. Its engine, rated at 40 h.p. in Italy, was, as might be expected, its most remarkable feature. Cattaneo had designed not only his company's first motor with eight cylinders in line, but the first to



A Tipo 8 with Fleetwood body built for Rudolf Valentino.
(Photo: Montagu Motor Museum)

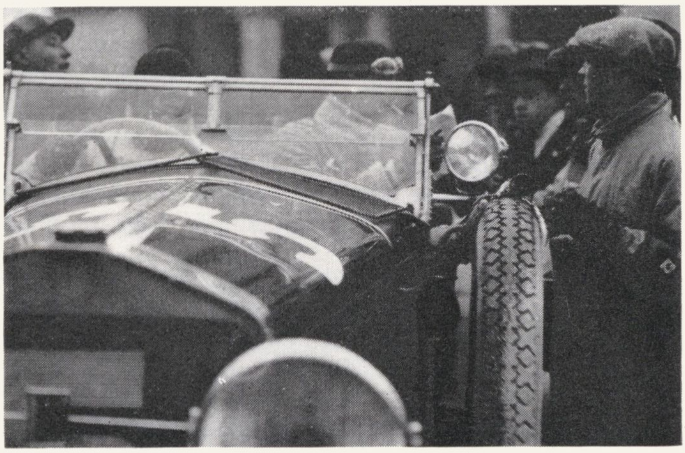
An early Tipo 8A landaulet against a Roman background.
(Photo: *La Fotografica* and Egon Hanus)





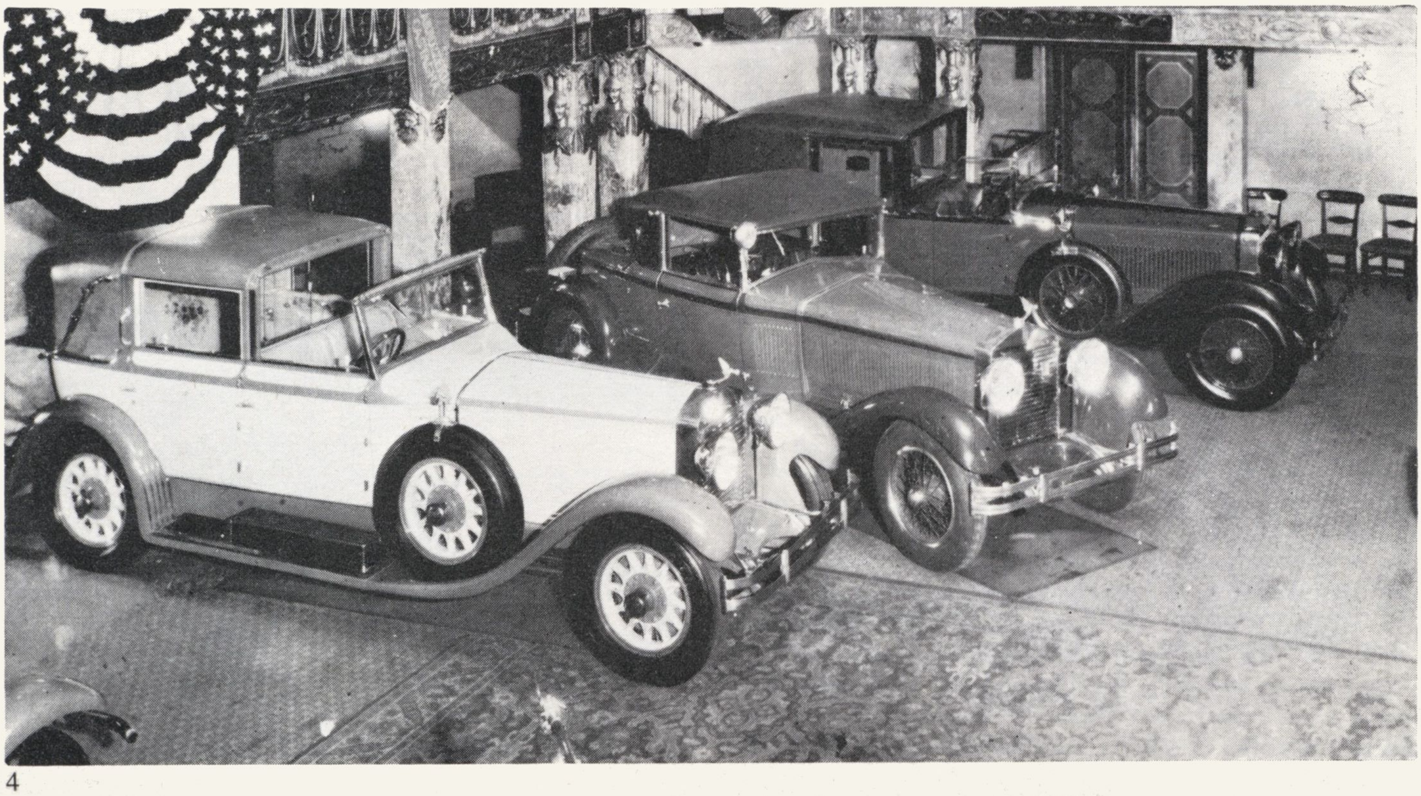
The Tipo 8ASS of the Duke Pio Arati di S. Pietro in the Targa Abruzzo race, 8th August 1926. (Photo: Egon Hanus)

go into series production anywhere in the world. The wealthy, particularly in America, wanted flexibility combined with power throughout the range of engine speed, and adding to the number of cylinders was the fashionable recipe. In the case of the Isotta, the arrangement of the cylinders was 4–4, like two four-cylinder engines in line; an unusual layout that was claimed to give more even carburation. Apart from teaching them something about eight-cylinder power units, the company's aero-engine experience had also underlined the value of light alloys. The Tipo 8's aluminium block was a single casting, although the fixed cylinder heads were in two groups of four. The pistons, too, were aluminium, with tubular connecting rods. The compression ratio was a conservative 5 to 1. Pushrods and rockers operated enclosed overhead



Count Aymo Maggi and Bindo Maserati in the first Mille Miglia race, 1927: they were placed sixth overall.
(Photo: Valerio Moretti and Egon Hanus)

Isotta Fraschini and Castagna exhibit in the Commodore Hotel, New York, 1927. In the centre is a Tipo 8ASS roadster in silver and emerald green, with pink and grey striping. (Photo: Valerio Moretti and Egon Hanus)

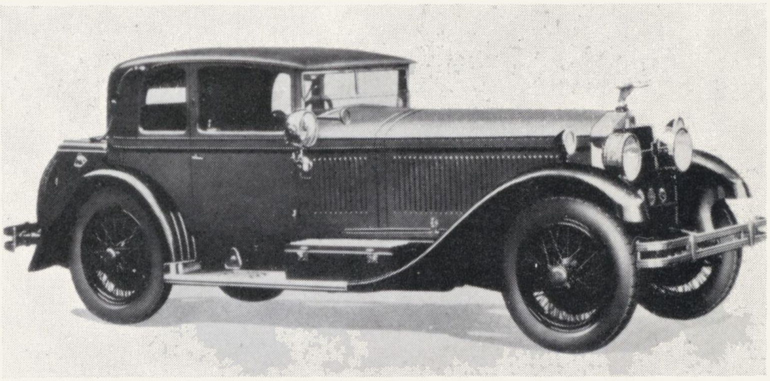


valves, two per cylinder. The 85 × 130 mm. cylinders, which gave a total capacity of 5,902 c.c., had steel liners, and were fed by two side-draught, triple-diffuser Zenith carburettors. Ignition was by magneto. There was pressure lubrication to the nine-bearing crankshaft, which wore a vibration damper at its front end. Cooling was by pump and fan. The exterior of the engine was beautifully clean in its lines, in the Italian tradition. This was a modern but long-stroke, low-stressed, low-revving power unit, designed for reliability. Cattaneo had had plenty of experience of more potent layouts, but this was not to be a sporting car. The power output was between 75 and 80 b.h.p. at 2,200 r.p.m. The power was transmitted through a multiplate clutch, a three-speed unit-construction gearbox with central ball change, and enclosed propeller shaft to a fully-floating spiral bevel axle with a final drive ratio of 3·75:1.

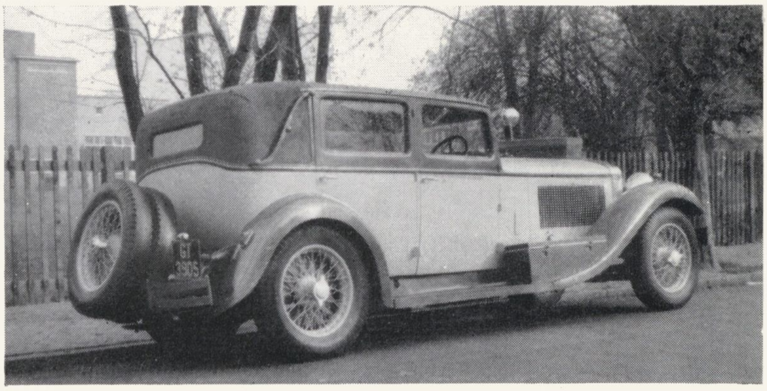
Like the transmission, the chassis was conventional enough, leaving aside the four-wheel brakes, which were still of Isotta design. Both the foot pedal and the hand lever operated all four brakes, which were compensated and had mechanical servo assistance. Springing was by half-elliptics fore and aft, assisted by dampers, mostly of Hartford friction type. The wheelbase was 12 ft. 1 in., and the track 4 ft. 8 in. The finish of the whole car, both mechanical and bodily, was superb. Refinements included a gearbox lock, an adjustable steering column, and a sprung radiator. The Tipo 8 was capable of 70 m.p.h. carrying the formal bodies it usually wore, or nearer 80 with open coachwork, and roadholding was described by the Press as 'impeccable'. Acceleration and braking, however, were the features which most impressed contemporary testers. In terms of speed and stopping-power, it was superior to the Rolls-Royce Silver Ghost, which is not surprising, as the latter was a twelve-year-old design. It was noisier, but in this respect was no worse than the H6B Hispano-Suiza.

When comparing these two cars, as has constantly been done ever since they were new, it is important (if we are to be fair) to remember that in the case of the Isotta, performance was deliberately sacrificed to the sedater qualities such as reliability and refinement. Both cars were intended to carry town-carriage and open bodywork with equal facility, in the city or on fast open roads. However, the Hispano, with its 6·6-litre, overhead camshaft engine developing 135 b.h.p., was a bigger and technically more sophisticated car, and its chassis was lighter—24½ cwt., against the Isotta's 28 cwt. Being a car that invited the sporting driver, the Hispano was given exceptional high-speed handling qualities to match. One cannot reasonably attack the Isotta for not having characteristics it was not originally intended to possess.

In 1921 the company came under new management. All three of its prime movers, Isotta and Vincenzo and Oreste Fraschini, were dead or had left. The Tipo 8, however, continued to do well. Would-be competitors at home, the twelve-cylinder Fiat and Lancia, never got into production. By 1924, there was a service depot and garage in Paris capable of accommodating 200 cars, and agencies existed in New York, London, Brussels, Madrid, Basle, Buenos Aires, Sao Paulo in Brazil, and Santiago de Chile—indications of the popularity of the Tipo 8 among the wealthy. As always, the American market was the best. U. V D'Annunzio, son of the Italian poet and patriot Gabriele d'Annunzio, handled American sales. The spectacular Isotta Fraschini was strongly supported by the famous in search of more limelight. An imported luxury car carried the ultimate *cachet*. When the Tipo 8 was first offered to Americans in 1922, the chassis price was around $6,500, but this mattered little to clients like Rudolf Valentino (who had a coupé de ville with bodywork by Fleetwood, and a roadster), Clara Bow, William Randolph Hearst, and Jack Dempsey.

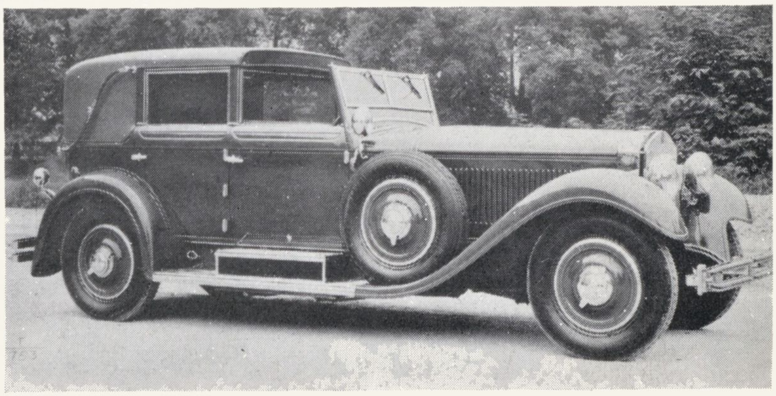


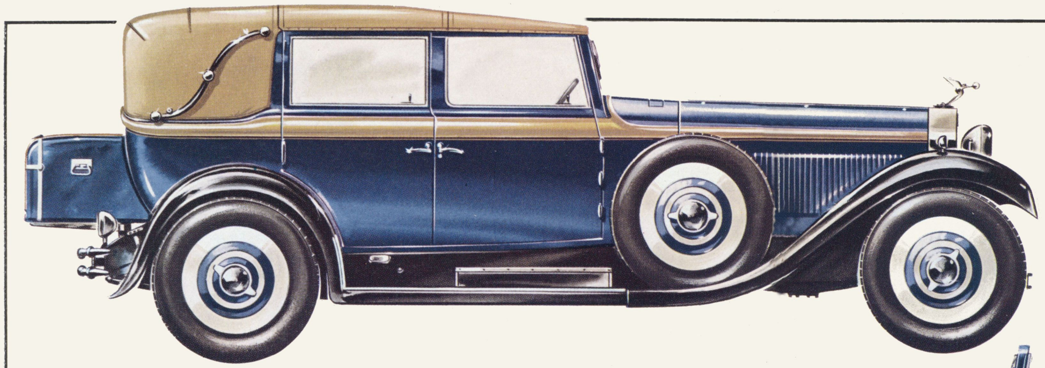
Tipo 8ASS four-passenger fixed-head coupé, 1927.
(Photo: C. W. P. Hampton)

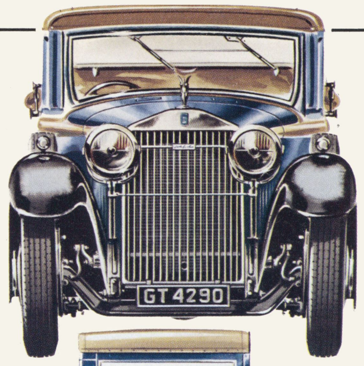


Isotta-Fraschini in England: 1929 Sala-bodied Tipo 8A, used as a demonstration car by the British concessionaires.
(Photo: Peter B. Moore)

Tipo 8A coupé de ville, *by Farina, 1929.*
(Photo: Egon Hanus)





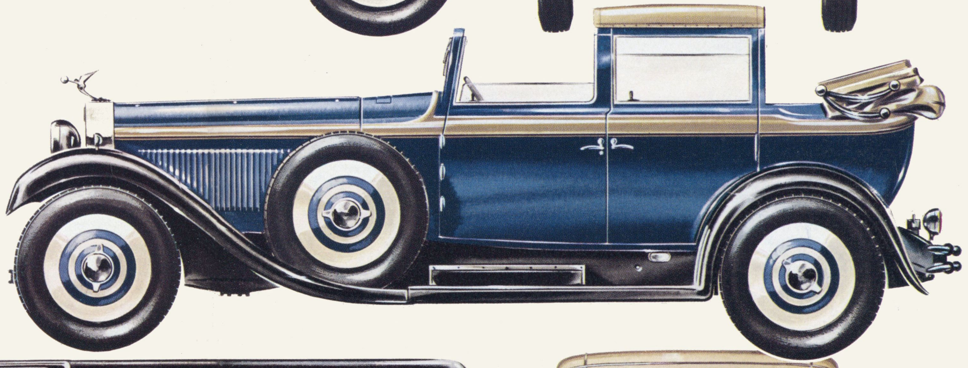


Isotta Fraschini

IF

MILANO

THE ISOTTA FRASCHINI TIPO 8B, 1931, with landaulette-de-ville coachwork, with removable 'trunk', by Castagna of Milan. Owner: B. Brierley Esquire, of Oldham, Lancashire, England.



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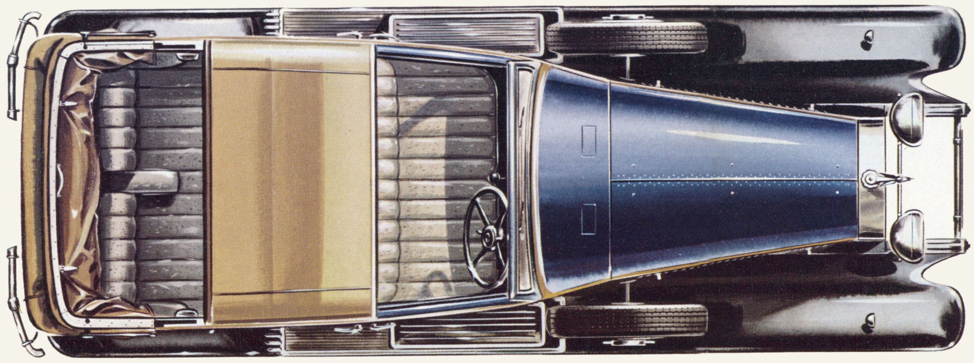

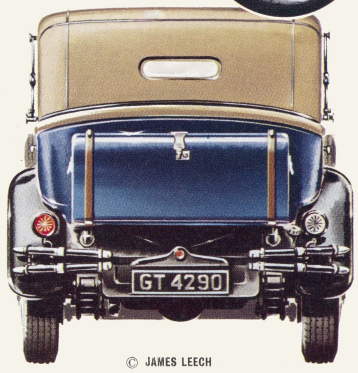

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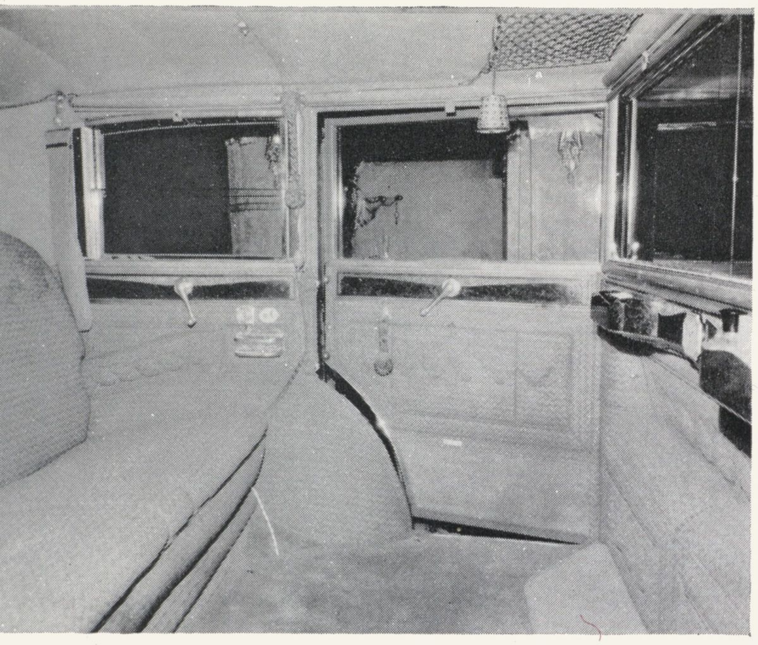


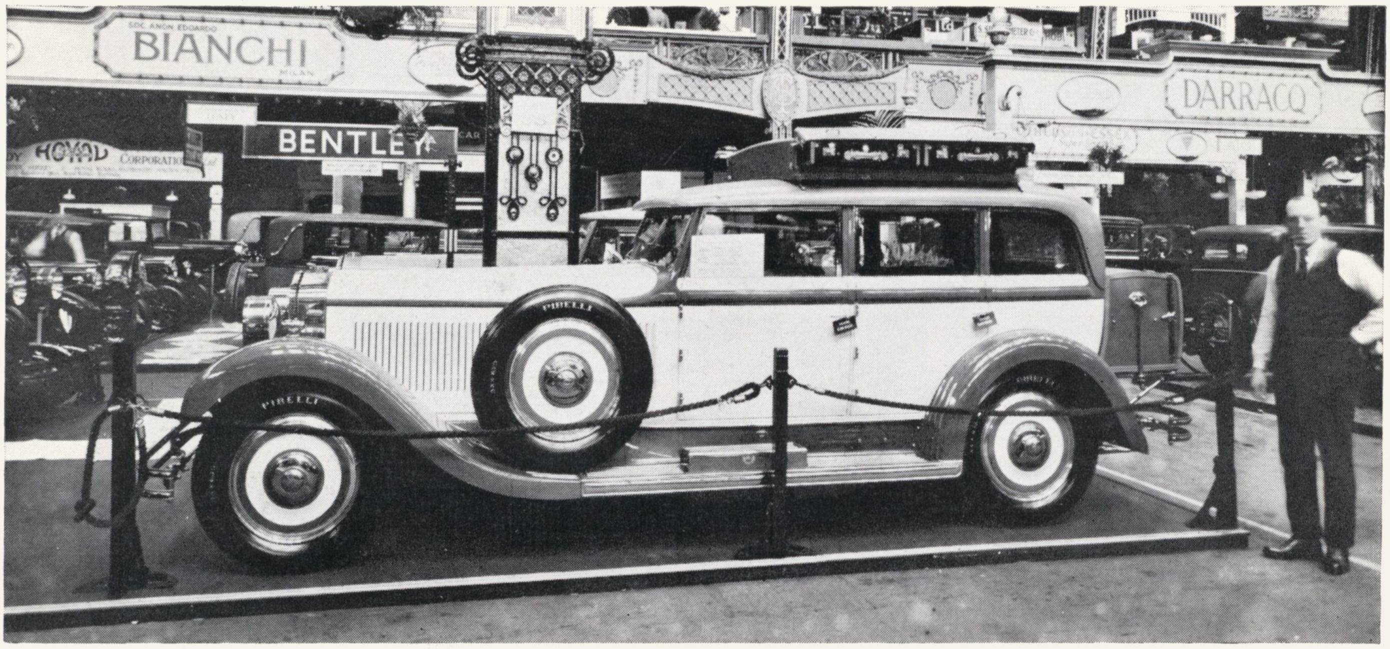
Interior of Castagna's all-weather cabriolet-sedan on the Tipo 8A chassis shown at the Commodore Hotel, 1929.
(Photo: John Adams Davis, Comm. Ercole Castagna and Egon Hanus)

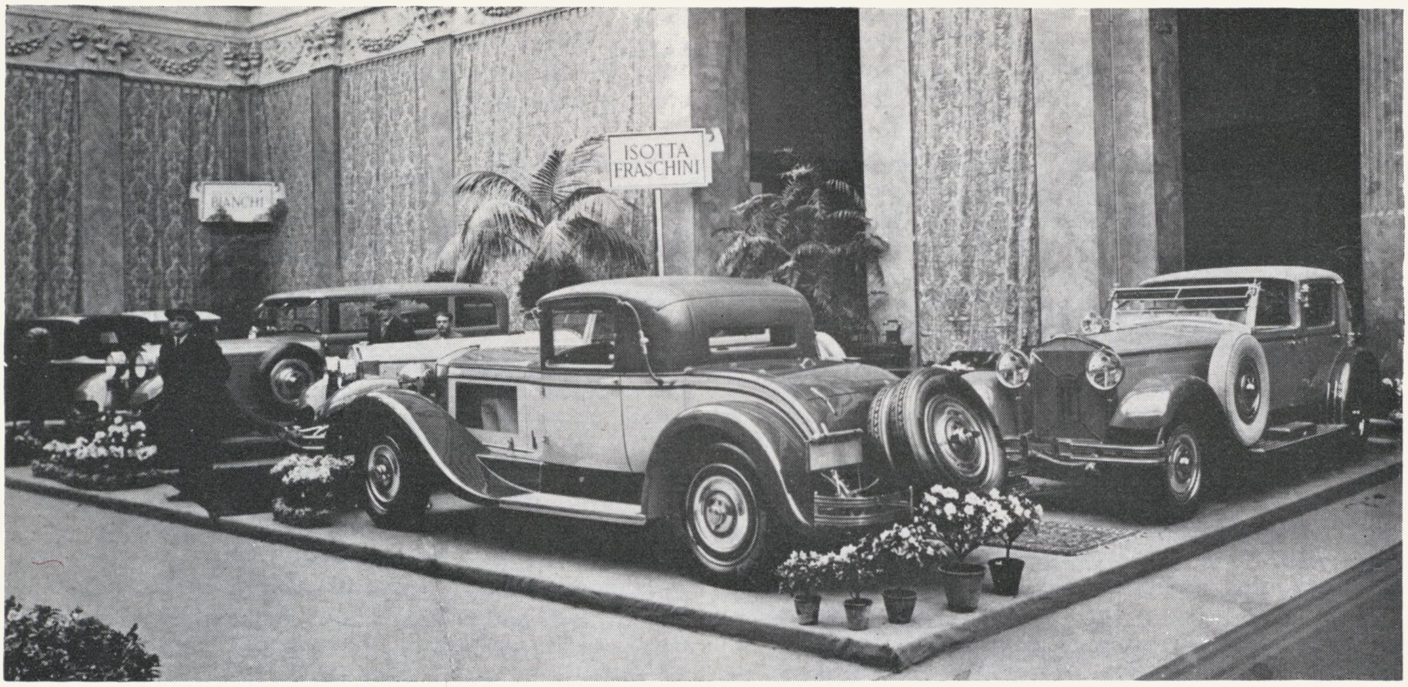
THE TIPO 8A

A development of the Tipo 8, called the 8A, replaced it late in 1924, though the Tipo 8 continued to be sold in America for a few years more. The purpose was to make a faster car, to lure away some of the Hispano-Suiza's clientèle. Not even a Spinto (sports) version of the Tipo 8, mildly tuned, had been able to do this. In the 8A, the bore was enlarged to 95 mm., providing 7,370 c.c. and changing the Italian rating to 50/100 h.p. This engine gave between 110 and 120 b.h.p., at the still very moderate engine speed of 2,400 r.p.m. The brakes were bigger, and were furnished with Dewandre vacuum servo assistance. Low-pressure tyres were fitted, and to counteract the heavier steering that would have resulted, a spring damper was incorporated in the drop arm. The gear ratios were raised to 3·5, 6·7 and 11·8:1, although chassis weight went up to around 30 cwt. Petrol consumption was around 12 m.p.g. Outwardly, a square blue and white radiator badge distinguished the Tipo 8A from the Tipo 8, which had used the old round Isotta insignia. Both cars were seen with bodywork by a variety of coachbuilders, but that of Cesare Sala and Ercole Castagna predominated. One such, with silver and ivory fittings, cost 800,000 lire (£8,000). The chassis price was around 120,000 lire (£1,200), to which 20–30,000 lire had to be added for a body. From late 1928, cars could be supplied by the factory complete with coachbuilt body.

The Tipo 8A was a better and still more popular car, but it was again compared unfavourably with the Hispano-Suiza, as it could not equal the latter's performance and high-speed road manners. Duke Pio Arati di San Pietro won the Targa Abruzzo race in 1925 and 1926, but a sporting image still eluded the Isotta Fraschini. In the circumstances, it is incongruous to find that, for many years, two of the Maserati family, Alfieri and Bindo, worked for the company as testers, and that, when Maserati racing cars appeared, they were assembled out of parts made largely in the Via Monterosa. The magnificent H6C Sport Hispano was countered by the 8ASS or Super Spinto Isotta of 1926, which, in terms of sheer speed, was probably equal to its rival. The option of a 12 ft. 1 in. or 11 ft. 2½ in. wheelbase was offered. Into these chassis was installed an engine of the same capacity as the 8A, but with a higher (5·5:1) compression ratio, larger valves, double valve springs, and separate inlet manifolds for each carburettor, which were now of downdraught type. The output quoted for this engine varied between 135 and 150 b.h.p., and although the car was still heavy—48 cwt. for the complete four-passenger tourer—it was guaranteed to reach 100 m.p.h. The 0–80 acceleration figure, using all the gears, was a very fine 25·2 seconds. The fact that the car would also throttle down to 5 m.p.h. on the 3·25:1 top gear did not interest the sporting fraternity. They liked to use the gearbox, though neither the Isotta nor the Hispano, both still with three forward speeds, encouraged this. The ratios of the 8ASS were 3·25,

The Isotta Fraschini stand at the Olympia show, London, 1929. A Sala-bodied touring limousine in the foreground.
(Photo: *Radio Times* Hulton Picture Library)





The Isotta Fraschini stand at the Rome Automobile Show, 1929. (Photo: Egon Hanus)

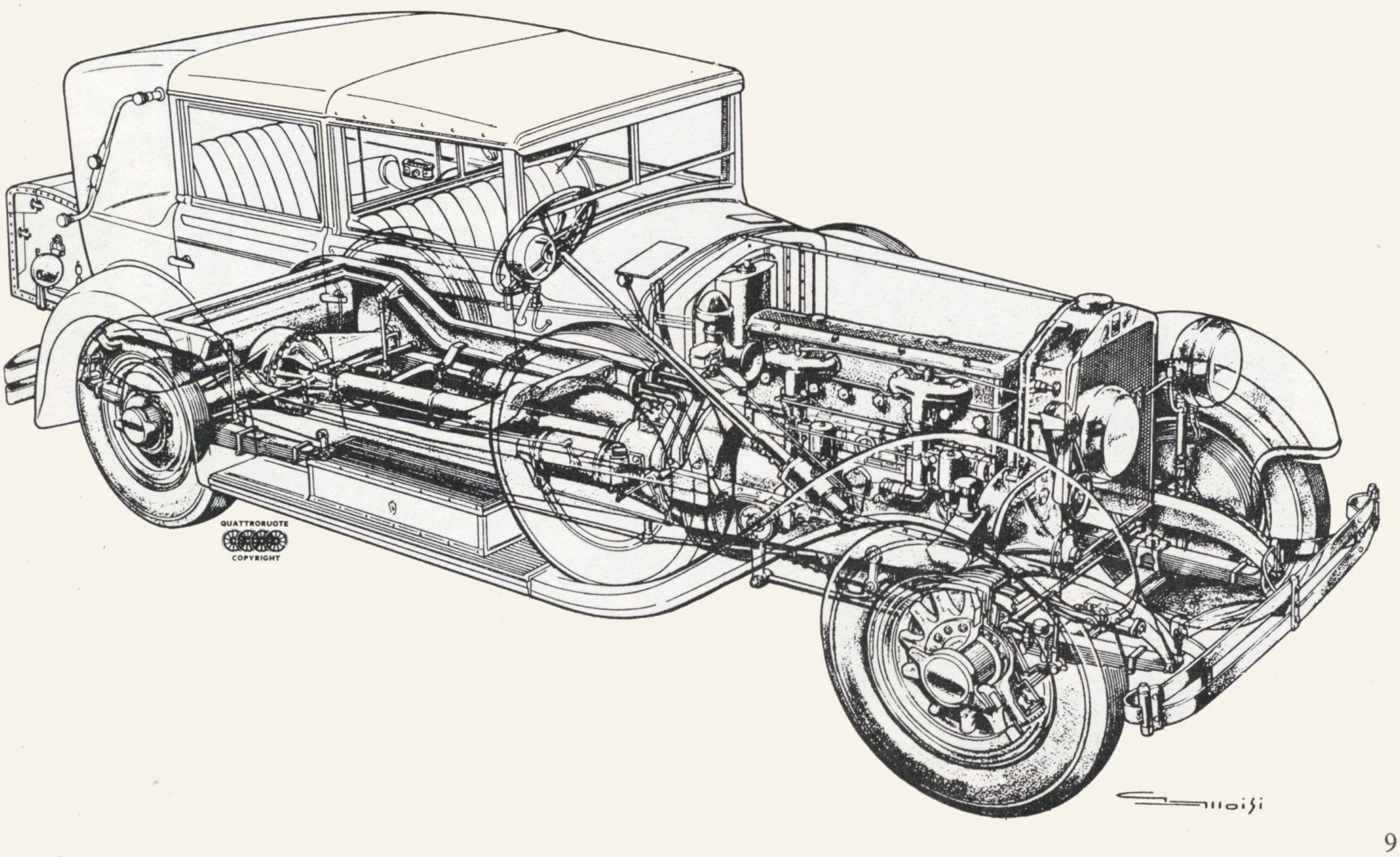
6·25, and 11:1. The later 8A was supplied with the dual inlet manifolds of the 8ASS.

The 8A was current until 1931, but from about 1928, the production of marine and aero engines, which had been more important to the company since the war than motor-cars, played an increasingly large role in its activities. Two in particular became famous—the ASSO aero engine, a vee-twelve unit developing 500 h.p. and weighing only nine cwt., and the MAS marine engine. Isotta diversified with commercial vehicles, too. In any case, from 1929 the market for expensive cars was drastically curtailed by the world depression, which hit the Tipo 8A particularly hard because most of its sales were in America. Late in 1929 an Isotta Fraschini landaulet could be had in New York for $22,500 (£4,500) complete. How many takers were there a few months later?

THE TIPO 8B

The numbers of cars made declined drastically after the Stock Market crash, but this did not deter Isotta

Tipo 8A, 1929: a cutaway drawing. (Courtesy: *Quattroruote* and B. Brierley)



Fraschini from bringing out a new model in April 1931. This 8B was a further improvement on the theme of the original Tipo 8, and was generally regarded as the best Isotta made so far. It included a great many modifications over the Tipo 8A. The block was now a nickel-steel casting, and the pistons and connecting rods were of the same material. The latter were H-section instead of tubular. The valve gear was lighter. The inlet manifolds were jacketed and heated by exhaust gases, and there were now two completely separate exhaust manifolds with their own down-pipes also. The crankshaft was heavier and stiffer. Coil ignition replaced the magneto. The gearbox was given synchromesh operation and helical gears, and a four-speed Wilson self-changing box was offered as an option. The latter was standardised on later cars. The chassis was stronger and stiffer, with deeper side members and two extra crossmembers. At the same time, hydraulic shock absorbers were fitted, and the springs were made softer. Radiator shutters were provided. The power output was about the same as for the 8ASS, but it was developed at 3,000 r.p.m. Although the chassis was a little heavier than that of the 8A, and a complete car could weigh as much as three tons, most 8Bs were capable of 90 m.p.h. The chassis cost around 150,000 lire (£1,500). The appearance generally was lower, owing to smaller wheels, a slightly lower radiator, and the altered suspension.

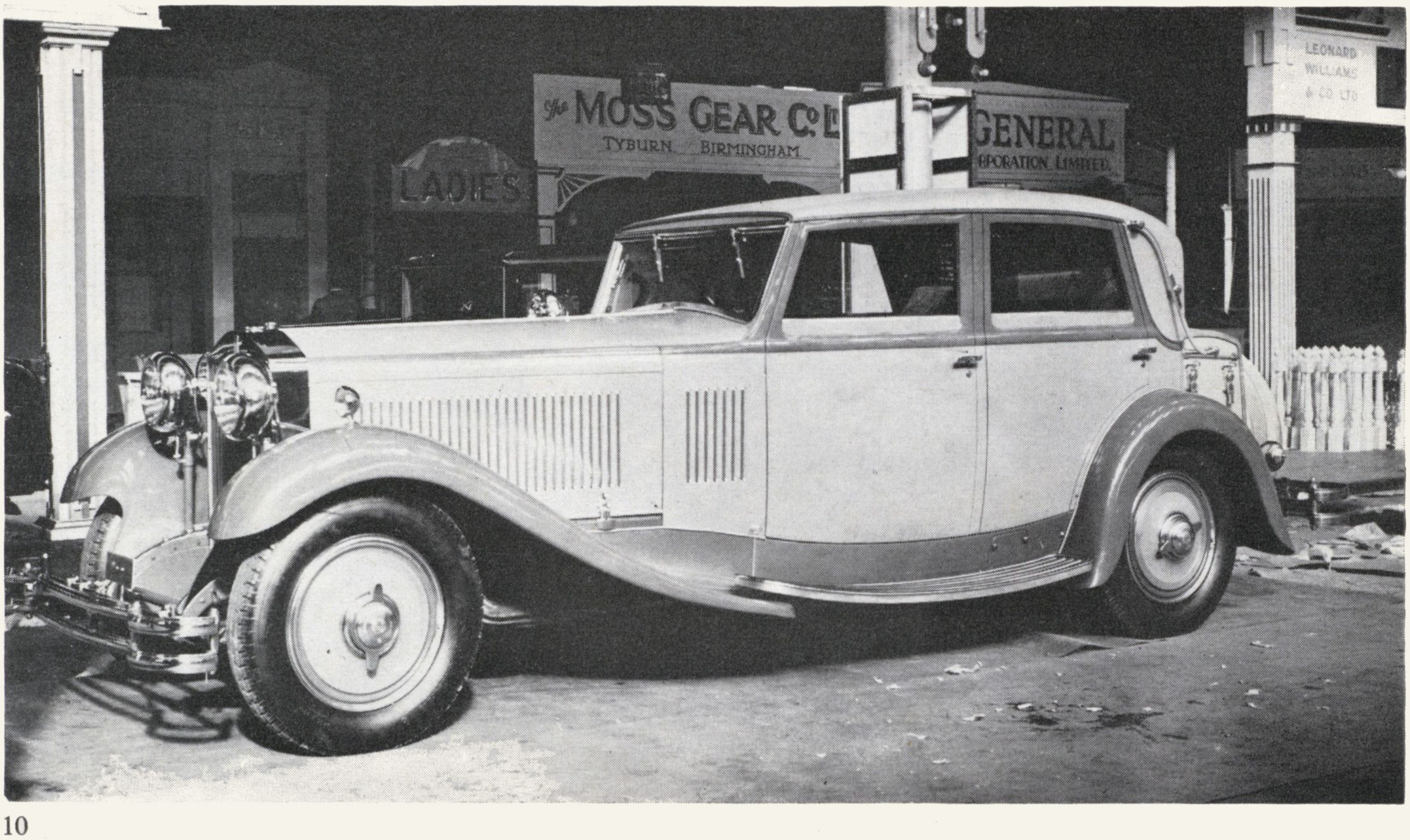
This great car was Cattaneo's swansong for Isotta Fraschini. The times were hostile, as they were for the 8B's rivals, the V-12 Hispano (see Profile No. 3), the Rolls-Royce Phantom II and the Bugatti Type 46. The company itself was tottering. A proposed agreement with Ford had been stopped by the Government in 1932, bringing the firm to the verge of ruin. In 1933 new management took over, and Cattaneo, who by now was Managing Director, departed. Car production began to run down in the same year, and the last 8Bs were built two or three years later. Very few had been made in all. Henceforth, for twelve years, only engines and diesel trucks were constructed. Production for war, first in Ethiopia and then in the world, kept the company going.

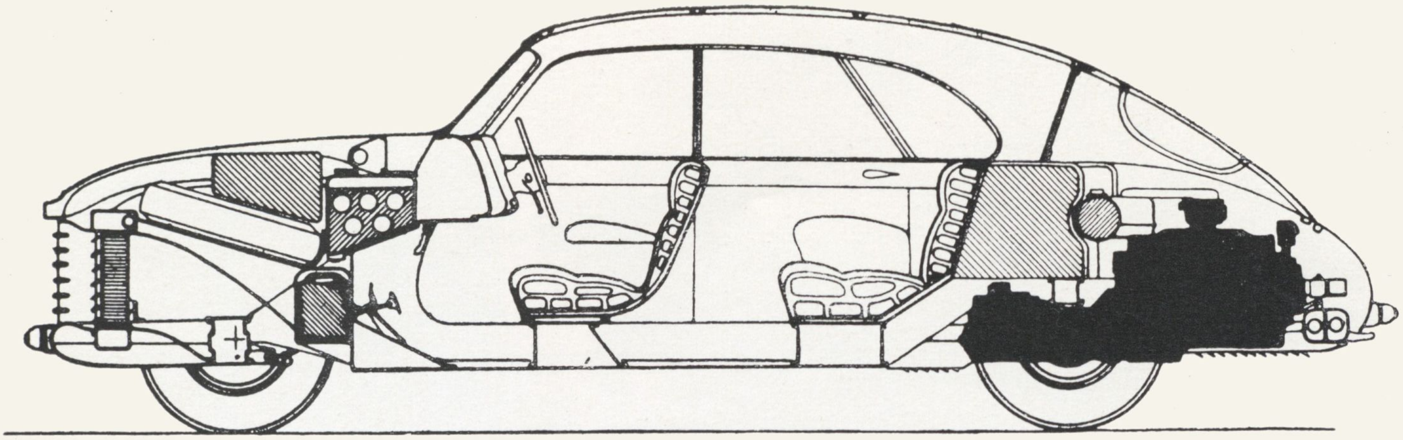
THE 8C MONTEROSA

In spite of the grim prospects, the last Isotta Fraschini car had not been made. In 1945, in the first months of peace, came rumours of a 'people's car', but the only road vehicles to emerge from the bomb-damaged Via Monterosa were a few commercials. History in fact repeated itself, for the new Isotta, when it appeared, was another advanced eight-cylinder luxury car, to be made in one model only, mainly for the American market. Otherwise, there was no trace of the old Tipo 8; though plenty of the Tatra from Czechoslovakia. The 8C Monterosa, named after the street in which it was made, took its bow at the 1947 Paris Salon and the 1948 Geneva Show. It was designed by F. L. Rapi, who was one of the old hands. In the new car, the eight cylinders were arranged in ninety-degree vee formation, and the engine was at the rear, in unit with the gearbox and final drive. It was a single overhead-camshaft unit, at first of about $2\frac{1}{2}$ litres, and then of 3·4 litres. The last developed 125 b.h.p. at 4,200 r.p.m., which sufficed to propel this car at over 100 m.p.h. It drove through a single dry-plate clutch and a five-speed all-synchromesh gearbox to a spiral bevel final drive. The frame was an immensely strong box structure. The brakes were hydraulically-operated. Wheelbase was 10 ft. $2\frac{1}{2}$ in., and track 4 ft. 9 in. The suspension, independent at the front and semi-independent at the rear, consisted of rubber cushions

An early Tipo 8B shown at the Olympia show, London, 1931.

(Photo: *Radio Times* Hulton Picture Library)





Cutaway side elevation of the Tipo 8C Monterosa: the company's first radically new design for 30 years.

controlled by hydraulic shock absorbers. Closed and convertible bodies were listed—over a dozen of them, and some were in fact made by Touring, Zagato, and Boneschi. By present day standards they were ugly, in the bloated all-enveloping style of the late 1940s. The saloon weighed a little less than 28 cwt. Only a score of the 8C were made, and none, it seems, was sold to the public. In February 1948 the company passed into the hands of the receiver, and in September 1949 went into compulsory liquidation. The last cars of a great *marque* had been made, but the traditions of quality and performance were carried on by the Construzione Revisione Motori, led by a former Isotta technician, who took over the manufacture of Isotta Fraschini marine engines at the instance of the Royal Swedish Navy. The C.R.M. records state that 400 of the Tipo 8 were made; 950 of the 8A, 30 of the 8B, and 20 of the 8C. Two-thirds were exported, between 400 and 450 of the 8, 8A and 8B going to America.

© T. R. Nicholson, 1967.

SPECIFICATION: TIPO 8 ISOTTA FRASCHINI 1919-1924

ENGINE: Eight cylinders in line. Bore and stroke 85 × 130 mm., 5,902 c.c. Italian rating 40 h.p. Aluminium cylinder block with steel liners, aluminium pistons. Two overhead valves per cylinder actuated by pushrods and rockers. Tubular connecting rods. Fixed cylinder heads. Compression ratio 5 to 1. Nine-bearing crankshaft with vibration damper.
Ignition: Bosch magneto.
Carburation: Two Zenith side-draught triple-diffuser carburettors.
Lubrication: Pressure.
Cooling: Pump and fan.
Claimed output: 75–80 b.h.p. at 2,200 r.p.m.

TRANSMISSION
Clutch: Multi-plate.
Gearbox: Sliding pinion, in unit with engine. Three speeds and reverse.
Final drive: Fully floating spiral bevel. Ratio 3·75 to 1.

CHASSIS
Wheelbase: 12 ft. 1 in.
Track: 4 ft. 8 in.
Suspension: Half-elliptic springs front and rear, usually with Hartford friction shock absorbers.
Brakes: Isotta Fraschini internal expanding on all four wheels. Mechanical servo assistance.

WEIGHT
Chassis: 28 cwt. approx.

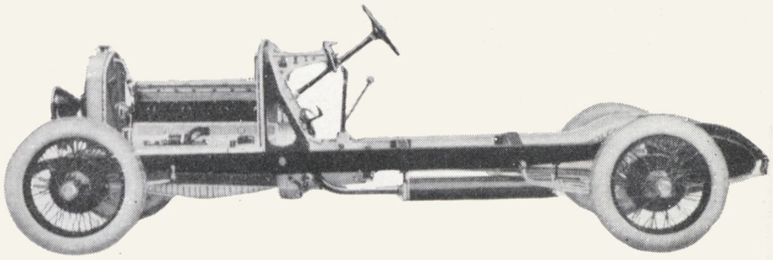
SPECIFICATION: TIPO 8A 1925–31

Generally as for Tipo 8, with the following major differences:

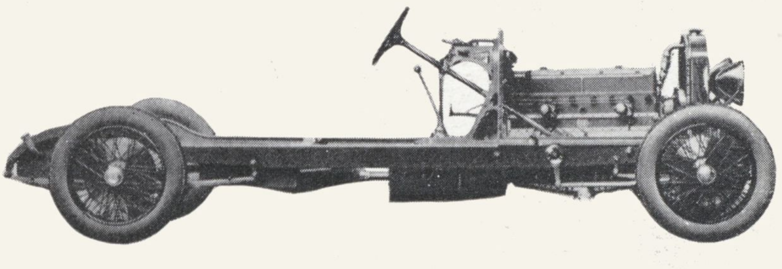
ENGINE
Bore and stroke 95 × 130 mm., 7,370 c.c. Italian rating 50/100 h.p. Dual inlet manifolds on later cars.
Claimed output: 110–120 b.h.p. at 2,400 r.p.m.

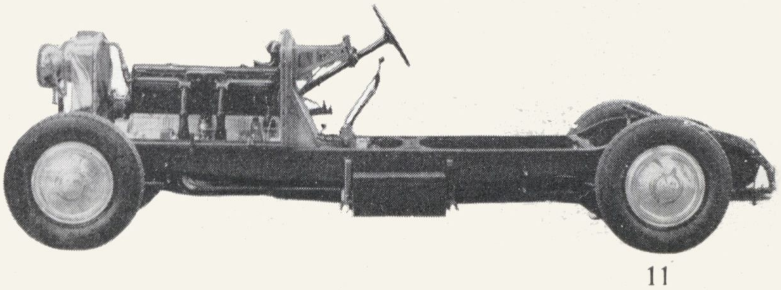
TRANSMISSION
Gearbox: Ratios 3·5, 6·7, 11·8 to 1.
Final drive: Ratio 3·5 to 1.

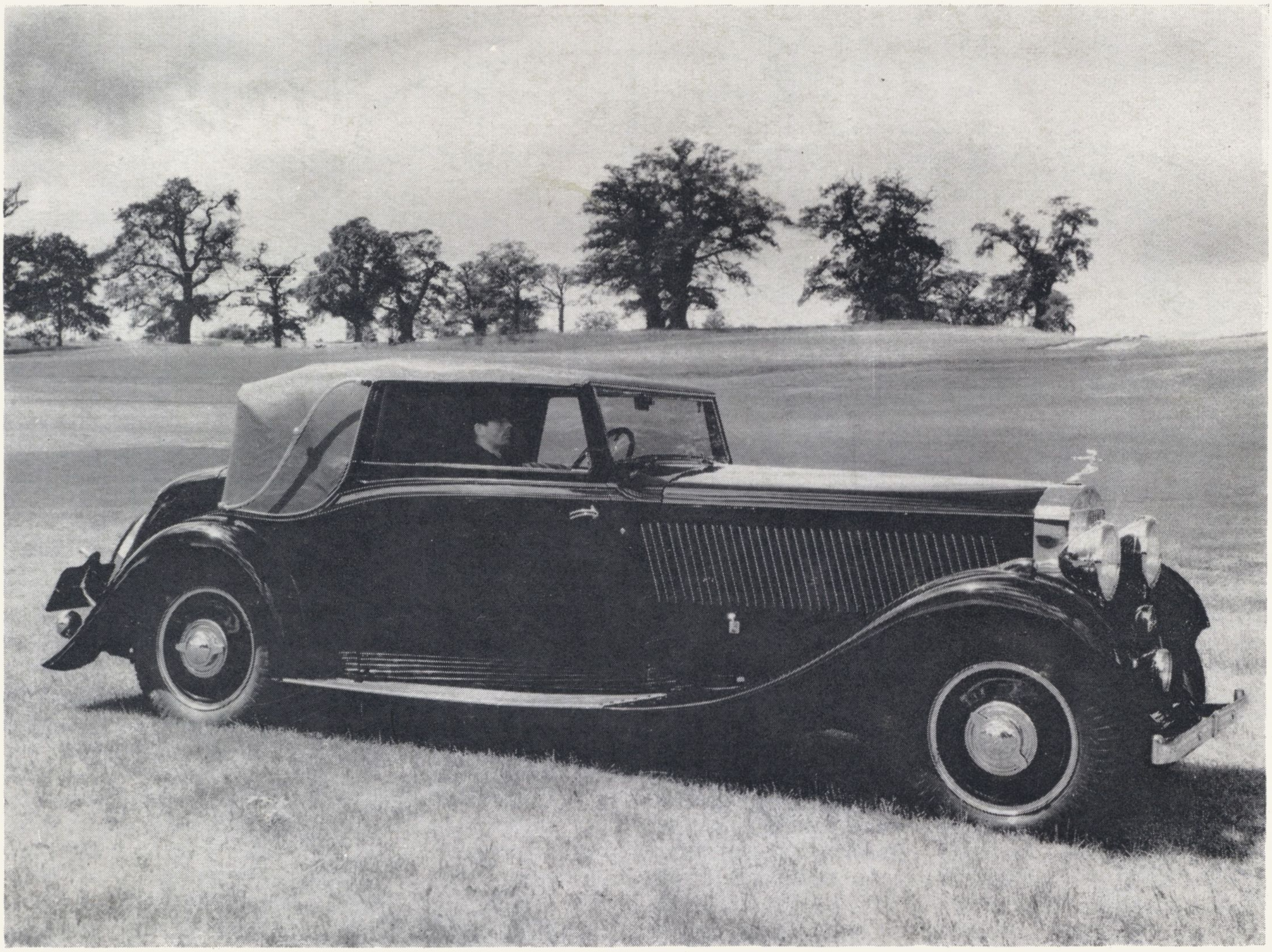
CHASSIS
Brakes: Larger drums. Dewandre vacuum servo assistance.
Steering: Damper in steering drop arm.



Top to bottom: Tipo 8, Tipo 8A, and Tipo 8B chassis. The brakes get bigger and the frame noticeably more massive.







Tipo 8B, with English coachwork (probably by Barker); one of the handsomest Isotta Fraschinis built.
(Photo: Montagu Motor Museum)

WEIGHT
Chassis: 30 cwt. approx.

SPECIFICATION: TIPO 8ASS 1926–28

Generally as for Tipo 8A, with the following major differences:
ENGINE
Compression ratio 5·5 to 1, larger valves, double valve springs, dual inlet manifolds.
Carburation: Two Zenith down-draught carburettors.
Claimed output: 135–150 b.h.p.
TRANSMISSION
Gearbox: Ratios 3·25, 6·25, 11 to 1.
Final drive: Ratio 3·25 to 1.
CHASSIS
Wheelbase: 12 ft. 1 in. or 11 ft. 2½ in.

SPECIFICATION: TIPO 8B 1931–35/36

Generally as for Tipo 8A, with the following major differences:
ENGINE
Block, pistons and connecting rods in nickel steel. H-section connecting rods, lighter valve gear. Double separate exhaust manifolds. Crankshaft heavier and stiffer.
Ignition: Coil.
Cooling: Radiator shutters fitted.
Claimed output: 135–160 b.h.p. at 3,000 r.p.m.
TRANSMISSION
Gearbox: Synchromesh, helical gears. Optional (later standard) four-speed Wilson self-changing gearbox.
CHASSIS
Stronger and stiffer, with deeper side members and two extra cross-members.
Suspension: Softer springs. Hydraulic shock absorbers.

SPECIFICATION: TIPO 8C MONTEROSA 1947–48

ENGINE
Eight cylinders in 90° vee formation, mounted at rear, in unit with gearbox and final drive. Approx. 2½ litres, then 3·4 litres. Single overhead camshaft.
Claimed output: 125 b.h.p. at 4,200 r.p.m.
TRANSMISSION
Clutch: Single dry plate.
Gearbox: Synchromesh, five speeds and reverse.
Final drive: Spiral bevel.
CHASSIS
Wheelbase: 10 ft. 2½ in.
Track: 4 ft. 9 in.
Suspension: Independent, by rubber cushions and hydraulic shock absorbers.
Brakes: Hydraulic.
WEIGHT
Saloon complete: 28 cwt. approx.

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I am big. It's the pictures that got small.